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ORIGINAL PAPER

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Abstract *Background* To study disruptive behaviors adequately, we need to distinguish between individuals with different types of problems that may have a different etiology. The availability of a taxonomic system that helps in identifying homogeneous groups of individuals, with similar patterns of disruptive behaviors, is crucial to achieve this goal. Therefore, we examine which classes of preadolescents with symptoms of Attention Deficit/Hyperactivity Disorder (ADHD), Oppositional Defiant Disorder (ODD), and Conduct Disorder (CD) can be identified in the general population. *Methods* Disruptive behaviors of 2,230 10–12 year olds from the Dutch general population were assessed with the Child Behavior Checklist and Youth Self-Report. *Results* Latent class analysis revealed three classes of preadolescents: the first characterized by high scores on ADHD, ODD, and CD items; a second by high probabilities of ADHD and ODD symptoms; a third with low scores on all items. *Conclusions* Because classes of preadolescents with symptoms of only one type of disruptive behavior problems could not be identified, it can be questioned how useful separate diagnostic distinctions are in general population studies.

Key words latent class analysis – ADHD – ODD – CD – general population – adolescents

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Introduction

Childhood and adolescent disruptive behavior disorders are common, disabling, and associated with high costs, both societal and in terms of individual suffering (e.g., [17, 36, 37, 39]). Research regarding disruptive behaviors in children and adolescents from the general population is important to identify risk factors (e.g., [10, 12, 27, 30]) and mechanisms that determine change in symptoms across time [21, 39]. To study disruptive behaviors adequately, we need to distinguish between individuals with different types of problems that may have a different etiology. The availability of a taxonomic system that helps identifying homogeneous groups of individuals, with similar patterns of disruptive behaviors, is crucial to achieve this goal.

Most researchers of disruptive behaviors have used the three distinct constructs provided by *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* DSM-IV [7]: Attention Deficit/Hyperactivity Disorder (ADHD), Oppositional Defiant Disorder (ODD), and Conduct Disorder (CD). ADHD is characterized by inattention, hyperactivity, and impulsive behavior; ODD by recurrent patterns of negativistic,

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defiant, disobedient, and hostile behavior toward authority figures; and CD by a repetitive and persistent pattern of behavior that violates the basic rights of others or societal norms or rules. The mere fact that these disorders have been distinguished in DSM-IV does not automatically mean that this distinction has validity. Inspection of the different categories would lead one to expect overlap at the very least between ODD and CD.

Individuals who fulfill criteria for ADHD, ODD, or CD often also have symptoms of one of the other disorders. The cooccurrence of ADHD, ODD, and CD is greater than expected by chance [31] in both clinical [19, 28, 30] and general population samples [16, 23, 45]. The high comorbidity rates raise the question whether the existing distinction between ADHD, ODD, and CD represents the best way to identify homogeneous groups of individuals with disruptive behaviors. The aim of the present study is to examine this question in a large sample of early adolescents from the Dutch general population.

General population samples have two major advantages. First, they are representative. The second advantage is that comorbidity rates are generally higher in clinical samples than in general population samples, because due to Berkson's bias [9], individuals with more than one disorder will more likely be referred to mental health services than those with one single disorder. Hence, if the spectrum of disruptive behaviors consists of the three distinct disorders (ADHD, ODD, and CD), it is most likely that these three separate disorders can be revealed in a general population sample.

To classify individuals as accurately as possible, it is important to use all available information. Previous studies that assessed comorbidity of disruptive behavior disorders mostly used categorical diagnostic information. In other words, they applied decision rules to judge an individual as "disordered" or "normal". This approach may imply loss of valuable information, because subthreshold individuals, for instance, those who fulfill criteria for five symptoms of ADHD, are regarded as "normal", although they may be quite similar to individuals who fulfill six criteria for ADHD and therefore receive a diagnosis. Hence, individuals who are classified as having, for example, "pure" ADHD can still have several comorbid ODD or CD symptoms [23].

In contrast to factor analysis that yields information about which symptoms cooccur frequently, latent class analysis (LCA) is a technique to investigate empirically whether homogeneous groups of children with similar ADHD, ODD, or CD symptoms can be identified. Instead of predefined criteria for the presence or absence of a disorder, LCA uses ratings of children on several symptoms. Classes of children are identified who display similar symptoms. For each class of children, the probability is calculated that a symptom is present or absent. LCA might yield a class of children with, for instance, a high probability to be endorsed positive on ADHD symptoms, but negative on ODD and CD symptoms. This would indicate that it is valuable to make a taxonomic distinction between ADHD and the other disruptive behavior disorders. However, it is also possible that LCA does not identify classes of children with a high likelihood of having symptoms of only one specific disorder. This was the case in a study by Van Lier et al. [43] among very young (5–7 years) Dutch school children.

A possible reason why Van Lier and colleagues failed to find a distinct ADHD, OCD, and CD group is the young age of their sample. The prevalence of disruptive behaviors, especially CD, is low in early childhood and tends to rise with age [32, 33, 35]. Furthermore, Van Lier et al. relied on parent reports only, whereas it is known that differences between reports of parents and children are the rule rather than the exception [6, 15, 44].

The aim of the present study is to investigate which classes of 10–12 year olds with disruptive behavior sympytoms can be found in the general population, according to self-reports and parent reports. We hypothesize that classes of children with a high probability to have symptoms of one specific disruptive behavior disorder, and simultaneously low probabilities to have symptoms of other disruptive behavior disorders, cannot be identified. If our hypothesis would be true, this would indicate that it might not be useful to discern specific disruptive behavior disorders in general population studies, but instead, a category of "any disruptive disorder", or a total symptom count, would suffice.

Methods

Sample and procedure

The TRacking Adolescents' Individual Lives Survey (TRAILS) is a prospective cohort study of Dutch early adolescents aged 10–12 years, who are followed biennially until the age 24. The main objective of TRAILS is to chart and explain the development of mental health from young adolescence into adulthood, both at the level of psychopathology and at the level of underlying vulnerability and environmental risk factors. The present study used data from the first assessment wave of TRAILS, which ran from March 2001 to July 2002. The TRAILS target sample consisted of young adolescents from five municipalities in the north of the Netherlands, including both urban and rural areas.

The sample selection involved two steps. First, the municipalities selected were requested to give names and addresses of all inhabitants born between 10 January 1989 and 30 September 1990 (first two municipalities) or between 10 January 1990 and 30 September 1991 (last three municipalities), yielding 3,483 names. Simultaneously, primary schools (including schools for special education) within these municipalities were approached with the request to participate. School participation was a prerequisite for eligible adolescents and their parents to be approached by TRAILS, with the exception of adolescents already attending secondary schools (<1%) who were contacted without involving their schools. Of the 135 primary schools within the municipalities, 122 (90.4%) schools agreed to participate, accommodating 90.3% of the adolescents.

Second, if schools agreed to participate, parents (or guardians) received two brochures, one for themselves and one for their ado-

lescents, with information about the study. In addition, a TRAILS staff member visited the schools to inform eligible adolescents about the study. Approximately 1 week later, a TRAILS interviewer contacted the parents by telephone to provide additional information, answer questions, and ask whether they and their child were willing to participate. Respondents with an unlisted telephone number were requested by mail to pass on their number. If they reacted neither to that letter nor to a reminder letter sent a few weeks later, staff members paid personal visits to their house. Parents who refused to participate were asked for permission to call back in about 2 months, to minimize the number of refusals due to temporary reasons. If parents agreed to participate, an interview was scheduled, during which they were requested to sign informed consent.

The exclusion criteria for the adolescents were (1) incapability to participate because of mental retardation or a serious physical illness or handicap and (2) unavailability of a Dutch-speaking parent or parent surrogate and no feasibility to administer a part of the measurements in parent's own language. Of all subjects approached for enrolment (N=3,145), 6.7% were excluded. Of the remaining 2,935 young adolescents, 76.0% were enrolled in the study (N=2,230, mean age 11.09 years, SD 0.55, with 50.8% girls). Responders and nonresponders differed on various socio-demographic indicators, but not with respect to the proportion of single parent families nor on the prevalence of teacher-rated problem behavior. Furthermore, no differences between responders and nonresponders were found regarding associations between socio-demographic variables and mental health outcomes [14].

Measures

Adolescent's disruptive behaviors were assessed with the Child Behavior Checklist (CBCL)/4–18 [2] and the Youth Self-Report [3].

The CBCL is a parent questionnaire for assessing problems in 4–18 year olds; the YSR is a self-report questionnaire that was modeled on the CBCL. Both questionnaires contain 120 items on behavioral or emotional problems in the past 6 months. The response format is 0=not true, 1=somewhat or sometimes true, and 2=very true or often true. The good reliability and validity of the American version of the CBCL and YSR were confirmed for the Dutch translations [13, 46, 47].

The original empirical syndrome scales for the CBCL and the YSR were based on multivariate statistical analysis on data from large samples. To fit more closely to the clinical diagnostic approach, represented by the DSM [7], the following DSM-IV scales were recently constructed for the CBCL and its derivatives [4, 5]: Affective Problems, Anxiety Problems, Somatic Problems, Attention Deficit/Hyperactivity Problems, Oppositional Defiant Problems, and Conduct Problems. These CBCL/YSR DSM-IV scales are constructed based on the opinion of experts from 11 different countries from all over the world. They, independently, came to a list of main items that are considered representative for the different DSM-IV constructs.

Statistical analyses

Only CBCL/YSR items that are comprised by the DSM-IV scales Attention Deficit/Hyperactivity Problems, Oppositional Defiant Problems, and Conduct Problems (see Table 1) were used. The CBCL and YSR scores (0=not true, 1=somewhat/sometimes true, and 2=very/often true) were dichotomized in 0=not true and 1=somewhat/sometimes true or very/often true, because of the low prevalence of individuals who scored 2=very/often true. Items with a frequency of less than 5% were excluded, because results of LCA tend to become unstable by rare observations [26]. All analyses were performed separately for CBCL and YSR. Before performing LCA, the remaining items were entered into a confirmatory factor analysis (CFA) to determine whether it was possible to extract the three dimensions of interest in this study (ADHD, ODD, and CD). In this CFA, the three factors were allowed to correlate. Items with a factor loading above 0.3 were considered to be representative of the scale they were assigned to. For CFA, as well as for LCA, Mplus version 2.14 was used [38].

Early adolescents with comparable patterns of disruptive behaviors were identified with LCA [34]. The primary objective of LCA is to find the smallest number of classes of individuals with similar patterns of behavior that can explain the relationship among a set of observed variables. First, we fitted a one-class model. The next analysis concerned a two-class model. The same analyses were run with different starting values to minimize the influence of local extremes. A Bayesian Information Criterium (BIC) [24] and the Vuong–Lo–Mendell–Rubin likelihood ratio test [48] were applied to check whether the two-class model fitted better than the one-class model. In the same way, models with three and more classes were analyzed stepwise until the model did not improve further. The best model found, according to the BIC and the Vuong–Lo–Mendell–Rubin likelihood ratio test, was examined on model fit using the fit indices Root Mean Square Error of Approximation (RMSEA) <0.05, Comparative Fit Index (CFI) >0.90, and Tucker Lewis Index (TLI) >0.90. Finally, to control for possible differences in gender [29, 51], gender was added as a covariate [11].

The estimated parameters of the latent class model are latent class membership probabilities, which represent the probability for an individual to belong to each of the classes. Adolescents were assigned to a latent class based on their highest-class membership probability. Class-specific symptom endorsement profiles represent

Table 1 Factor loadings of confirmatory factor analysis for CBCL and YSR items reflecting DSM-IV ADHD, ODD, and CD

Factors/items	Factor loadings (CBCL)	Factor loadings (YSR)
Factor 1: ADHD		
1. Fails to finish what is started	0.64	0.53
2. Can't concentrate, can't pay attention for long	0.81	0.60
3. Can't sit still, restless, or hyperactive	0.74	0.56
4. Impulsive or acts without thinking	0.79	0.71
5. Inattentive, easily distracted	0.85	0.65
6. Talks too much	0.58	0.55
7. Unusually loud	0.83	0.71
Factor 2: ODD		
8. Argues a lot	0.74	0.66
9. Disobedient at home	0.83	0.66
10. Disobedient at school	0.73	0.73
11. Stubborn, sullen, or irritated	0.75	0.61
12. Temper tantrums or hot temper	0.74	0.59
Factor 3: CD		
13. Cruel or mean to people	0.75	0.76
14. Destroys others' things	0.69	0.67
15. Doesn't feel guilty after misbehaving	0.59	0.31
16. Gets in many fights	0.78	0.64
17. Hangs around with others who get in trouble	0.49	0.36
18. Lies or cheats	0.72	0.68
19. Physically attacks people	0.75	0.68
20. Swears or uses obscene language	0.74	0.66
21. Breaks rules[a]		0.78
22. Runs away from home[a]		0.56
23. Sets fires[a]		0.55
24. Steals at home[a]		0.63
25. Threatens others[a]		0.66
26. Truant or skips school[a]		0.44

[a] Item only in YSR and not covered by CBCL

the conditional probabilities for individuals in a particular class to have a specific symptom.

Results

CBCL model of disruptive behaviors

The CBCL/DSM-IV scales ADHD, ODD, and CD comprised 28 items. Eight items (cruel to animals, runs away from home, sets fire, steals at home, steals outside home, threatens people, skips school, vandalism) had frequencies below 5% and were excluded. The remaining 20 items were submitted to a CFA. All items had a factor loading above 0.3 and could therefore be considered to be representative of the scale it was assigned to (Table 1). The model fitted the data well (RMSEA=0.06, CFI=0.93, and TLI=0.96). Correlations between the three scales scores were high (0.69–0.85).

YSR model of disruptive behaviors

Of the 29 items of the YSR/DSM-IV scales ADHD, ODD, and CD, three items (cruel to animals, steals outside home, vandalism) had frequencies below 5% and were excluded. The remaining 26 items were submitted to a CFA. The factor loadings are reported in Table 1. The model fitted the data well (RMSEA=0.04, CFI=0.93, and TLI=0.96). Correlations between the three scales scores were high (0.73–0.93).

LCA for CBCL item scores

The first analysis, the one-class model, yielded a BIC value of 47,540. Moving from a one-class to a two-class solution resulted in a BIC drop of 5,856 points, which means that adding a second class improved the model. BIC values indicated that a three-class solution fitted the data best; moving from two to three classes resulted in a further BIC drop of 1,133 points. A four-class solution did not result in further improvement of BIC. Class sensitivity, the average class membership probability after the classification of children, was high (0.90–0.93), which means that the children are well classified.

Class specific endorsement probabilities for CBCL are shown in Fig. 1. Four hundred thirty nine (21%) children were assigned to class 1, 926 (45%) to class 2, and 691 (34%) to class 3. Adolescents in class 1 were characterized by high probabilities (median=0.74) of symptoms from all three scales (ADHD, ODD, and CD). For example, individuals in class 1 had a probability of 80.9% to score positively on item 3 (can't sit still; hyperactive). Adolescents in class 2 had intermediate probabilities of ADHD and ODD symptoms and low probabilities of CD symptoms (median=0.33). These adolescents had a probability of 46.6% to have a positive score on item 3. Adolescents in class 3 had low probabilities on all three scales (median=0.09). For these adolescents, the probability of a positive score on item 3 was 9.2%. Boys and girls were assigned to the three classes as follows: class 1 contained 301 (69%) boys and 138 (31%) girls, class 2 contained 438 (47%) boys and 488 (53%) girls, and class 3 contained 273 (40%) boys and 418 (60%) girls.

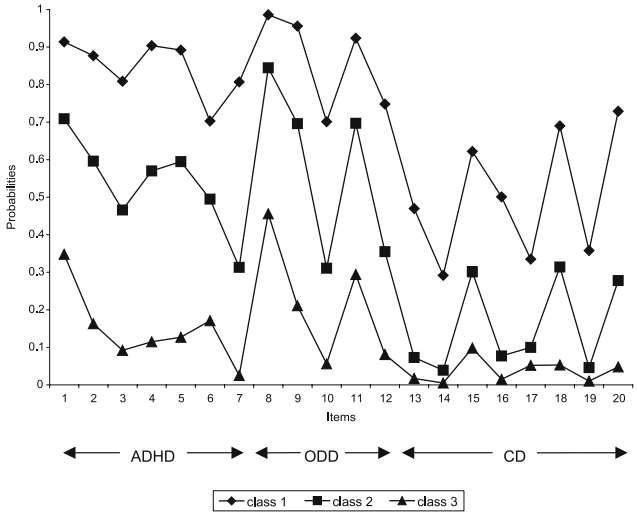

Fig. 1 Probability of positive *CBCL* item scores for *ADHD*, *ODD*, and *CD* symptoms for three classes of adolescents. Numbers 1 to 20 correspond with items 1 to 20 in Table 1

LCA for YSR item scores

Using the YSR, a one-class model with a BIC value of 59,461 was found. Moving from a one-class to a two-class solution resulted in a BIC drop of 2,350 points, which means the model improved. BIC values indicated that a three-class solution fitted the data best; moving from two to three classes resulted in a BIC drop of 903 points. When moving to a four-class solution, BIC still decreased 60 points, but no stable model could be found. To be sure that the three-class model really fitted the data best, a five-class solution was searched for as well. BIC decreased 33 points, but the Vuong–Lo–Mendell–Rubin likelihood ratio test indicated that adding a fifth class did not significantly improve the model. Class sensitivity, the average class membership probability after classifying children, was high (0.89–0.91).

For the YSR, class specific endorsement probabilities are shown in Fig. 2. Four hundred twenty three (19%) adolescents were in class 1, 972 (45%) in class 2, and 800 (36%) in class 3. Adolescents in class 1 were characterized by high probabilities (median=0.71) of symptoms from all three scales (ADHD, ODD, and CD). For example, individuals in class 1 had a probability of 72.7% to score positively on item 10 (disobedient at school). Adolescents in class 2 had intermediate probabilities of positive ADHD and ODD

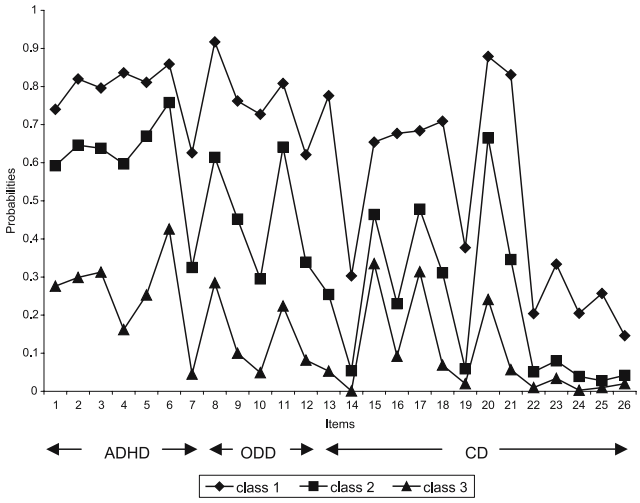

Fig. 2 Probability of positive *YSR* item scores for *ADHD*, *ODD*, and *CD* symptoms for three classes of adolescents. Numbers 1 to 26 correspond with items 1 to 26 in Table 1

symptoms (median=0.34) and low probabilities of positive CD symptoms (0.03–0.67). These adolescents had a probability of 29.5% to have a positive score on item 10. Adolescents in class 3 had low probabilities on symptoms of all three scales (median=0.09). For these adolescents, the probability of a positive score on item 10 is 5.0%. Boys and girls were assigned to the three classes as follows: class 1 contained 304 (72%) boys and 119 (28%) girls, class 2 contained 418 (43%) boys and 561 (57%) girls, and class 3 contained 357 (45%) boys and 443 (55%) girls.

Discussion

The aim of the study was to examine whether the existing distinction between ADHD, ODD, and CD that is often made in general population studies is the most useful one, given the high comorbidity rates. For this purpose, 2,230 10–12 year olds from the Dutch general population were investigated. Because classes of preadolescents with one type of disruptive behavior problems (for instance, ADHD) without having symptoms of other disruptive behavior problems (in that case, ODD or CD) could not be identified, it can be questioned how useful these separate diagnostic distinctions are in general population studies.

CFA of CBCL and YSR items showed that within the spectrum of disruptive behaviors, three separate dimensions of ADHD, ODD, and CD symptoms could be discerned. However, the high correlations between these three dimensions, irrespective of the informant (adolescent or parent) who provided the data, indicated that these dimensions do not represent clearly distinct constructs. Such evidence was also provided by latent class analyses. Classes of early adolescents who were characterized by only ADHD, only ODD, or only CD could not be identified. Instead, a first class characterized by high frequencies of ADHD, ODD, and CD symptoms; a second class characterized by high problem probabilities for ADHD and ODD symptoms, but not for CD symptoms; and a third class characterized by low scores on all items were found. This is in accordance with the study of Van Lier et al. [43].

The results suggest that comorbidity between ADHD and ODD is the rule rather than the exception. This contrasts with several clinical [19, 28, 30] and general population studies [16, 23, 45] in which ADHD and ODD are described as two distinct constructs. If the present study had relied solely on parent reports, one might have argued that the overlap of ADHD and ODD was caused by an inability of parents to distinguish ADHD symptoms from ODD symptoms. However, in the present study, comparable results were found for self-report data, which makes the hypothesis of informant bias unlikely.

Another finding that argues against the use of three distinct constructs in the general population is that a class of children with pure CD, without comorbid ADHD or ODD, could not be identified. This is in accordance with the results of the LCA that was performed on CBCL data of 5–7 year olds performed by Van Lier and colleagues [43]. It is still possible that CD constitutes a clearly distinct problem area in older individuals. The rates of behavior problems, and especially of CD problems, tend to rise with age [32, 33, 35]. Furthermore, Loeber and Keenan [31] reported that cooccurrence of ADHD, ODD, and CD decreases with age. To identify a sufficiently homogeneous group of adolescents displaying CD symptoms, without ADHD or ODD symptoms, older adolescents than the ones investigated in the present study might be needed.

Furthermore, a general population sample as used in the present study is representative, but is characterized by low frequencies of problem behavior. As a result, we had to dichotomize CBCL and YSR item scores, which means that scores of 1 (somewhat/sometimes true) and 2 (very/often true) were treated in a similar way. Because, given the constitution of the sample, the far majority of positive item scores were scored as 1, and not as 2, it is unclear if our findings would also hold true for disruptive behaviors that are very true or often true. Of course, a clinical sample might be used to resolve this problem. Although, Wadsworth et al. [49] found that results of LCA on anxiety and depression symptoms were similar in a clinic-referred sample and a nonreferred sample of 4–18 year olds, which indicates that use of a clinical sample does not necessarily yield different results.

A reason why use of a clinical sample does not necessarily yield distinct disease categories is constituted by Berkson's bias [9]. According to Berkson, comorbidity rates are generally higher in clinical samples than in general population samples, because individuals with more than one disease are more likely to be referred, than those having only one disease, due to the

possibility for both diseases to result in referral. This, undoubtedly, will influence the results of LCA in clinical samples. For this reason, it might even be argued that if the spectrum of disruptive behaviors would consist of ADHD, ODD, and CD, it might be more likely to find evidence for the existence of "pure" disorders in a general population than in a clinical sample.

Because the prevalence of disruptive behaviors tends to rise with age [32, 33, 35] and the risk for comorbidity of disruptive behaviors decreases with age [31], sharper distinctions between ADHD, ODD, and CD could still be found in older samples.

The fact that it is possible to use LCA to carve out clinically significant phenomena in adolescents from the general population was demonstrated earlier by Hudziak et al. [22]. They found evidence for the existence of three types of ADHD: an Inattention type, a Hyperactive/Impulsive type, and a combined type. This indicated that even if symptoms with high intercorrelations are studied, different classes, that do not only differ with respect to the frequency of symptoms, but also with respect to the type of symptoms, may be found with LCA.

Conclusions

The findings of the present study raise the question whether it is useful to distinguish ADHD, ODD, and CD from one another in a general population sample. Results indicate that a concept based on the hypothesis of discrete disruptive behavior disorders is not useful to discriminate classes of children with different types of disruptive behaviors. These findings contrast with some studies that assessed differences in biological correlates of ADHD, ODD, and CD. For instance, Herpertz et al. [20] studied a clinical sample of 8- to 13-year-old boys with behavior disorders. They found that individuals with ADHD plus CD showed a decrement of autonomic arousal responses and a more rapid habituation to orienting and aversive startling stimuli, compared to age-matched children with pure ADHD. This indicates that based on biological measures, there seems to be a differentiation between pure ADHD and ADHD with comorbid CD. Hence, although differentiation at the level of observable behaviors may not be possible, different classes of children might be constituted on the basis of biological characteristics. Unfortunately, Herpertz et al. [20] did not give any information about comorbid ODD, which makes it difficult to compare their findings with the classes found in the present study.

In the present study, CD symptoms were unlikely to occur without ADHD or ODD symptoms. It might be that in individuals from class 1, symptoms of CD, ODD, and ADHD might share the same origins. Hence, in search for the etiology of disruptive behaviors, when homogeneous groups from the general population are required, it may be more useful to look for individuals with all kinds of symptoms of disruptive behaviors than to merely gather information on CD symptoms.

ADHD and ODD symptoms appeared to be intertwined. If this would be similar in clinical samples, this might indicate that with respect to treatment, it might not be useful to develop different treatment modules for ADHD and ODD. In fact, this is supported by a research that has already shown that similar types of behavior therapy are effective for these two problem areas [1, 25]. Drug trials often focus on ADHD symptoms [8, 40]. Only few studies are available that demonstrate that drug therapy, intrinsically developed for ADHD, also works for ODD symptoms [1]. Our study indicates that it might not be needed to discern pure ADHD and pure ODD, but instead, to view these "disorders" as strongly overlapping, that conceivably might share favorable drug responses. This, of course, requires more research.

The debate regarding whether it is useful to discern ODD and CD in a general population sample is unresolved. Previous evidence suggested that ODD is a mild variant of CD [41, 42, 50]. Findings of the present study are in accordance with above-mentioned evidence. The results suggest that the often used taxonomy of three distinct disorders, ADHD, ODD, and CD, is not the most useful approach to find homogeneous groups in a general population sample of adolescents. Instead, the present study revealed two subtypes of disruptive behavior disorders. A first subtype might contain symptoms of ADHD, ODD, and CD, whereas a second subtype might contain symptoms of ADHD and ODD, but no symptoms of CD. This indicates that the distinction between moderate (class 2) vs. severe (class 1) behavior disorders is related with the presence or absence of CD symptoms. An alternative approach to a similar problem is discussed by Freeman et al. [18], who examined the hierarchy of paranoia. The relationship between CD and ADHD/ODD is likely to be hierarchical and nonreflexive. In other words, ADHD/ODD is considerably less predictive of CD than CD is of ADHD/ODD. Future research is needed to investigate to which extent class membership shifts across time and to assess if membership of class 2 (ADHD + ODD) is a risk factor for future class 1 (ADHD + ODD + CD) membership.

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